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Occupational Employment and Wages in Duluth — May 2017

Workers in the Duluth Metropolitan Statistical Area had an average (mean) hourly wage of \$21.99 in May 2017, about 10 percent below the nationwide average of \$24.34, according to the U.S. Bureau of Labor Statistics. Assistant Commissioner for Regional Operations Charlene Peiffer noted that, after testing for statistical significance, wages in the local area were lower than their respective national averages in 12 of 22 occupational groups, including legal; management; and computer and mathematical. Four groups had significantly higher wages than their respective national averages, including construction and extraction; production; and healthcare support.

When compared to the nationwide distribution, local employment was more highly concentrated in 8 of the 22 occupational groups, including healthcare practitioners and technical; personal care and service; and community and social service. Conversely, nine groups had employment shares significantly below their national representation, including business and financial operations; computer and mathematical; and production. (See [table A](#) and [box note](#) at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Duluth Metropolitan Statistical Area, and measures of statistical significance, May 2017

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Duluth	United States	Duluth	Percent difference ⁽¹⁾
Total, all occupations	100.0	100.0	\$24.34	\$21.99*	-10
Management	5.1	4.8	57.65	44.79*	-22
Business and financial operations	5.2	3.3*	36.70	29.67*	-19
Computer and mathematical	3.0	1.4*	43.18	32.76*	-24
Architecture and engineering	1.8	1.6	41.44	36.24*	-13
Life, physical, and social science	0.8	1.0*	35.76	31.41*	-12
Community and social service	1.5	3.3*	23.10	20.67*	-11
Legal	0.8	0.4*	51.62	37.03*	-28
Education, training, and library	6.1	6.0	26.67	24.61*	-8
Arts, design, entertainment, sports, and media	1.4	1.0*	28.34	19.96*	-30
Healthcare practitioners and technical	6.0	8.3*	38.83	38.39	-1
Healthcare support	2.9	4.3*	15.05	15.70*	4
Protective service	2.4	2.2	22.69	22.61	0
Food preparation and serving related	9.3	10.0*	11.88	11.64	-2
Building and grounds cleaning and maintenance	3.1	3.6*	13.91	13.95	0
Personal care and service	3.6	5.8*	13.11	12.63*	-4
Sales and related	10.2	9.1*	19.56	16.52*	-16
Office and administrative support	15.4	14.2*	18.24	17.44*	-4
Farming, fishing, and forestry	0.3	0.1*	13.87	19.37*	40
Construction and extraction	4.0	3.9	24.01	27.88*	16
Installation, maintenance, and repair	3.9	4.7*	23.02	22.63	-2

Note: See footnotes at end of table.

Table A. Occupational employment and wages by major occupational group, United States and the Duluth Metropolitan Statistical Area, and measures of statistical significance, May 2017 - Continued

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Duluth	United States	Duluth	Percent difference ⁽¹⁾
Production	6.3	4.9*	18.30	20.19*	10
Transportation and material moving	7.0	6.1*	17.82	18.49	4

Footnotes:

(1) A positive percent difference measures how much the mean wage in the Duluth Metropolitan Statistical Area is above the national mean wage, while a negative difference reflects a lower wage.

* The percent share of employment or mean hourly wage for this area is significantly different from the national average of all areas at the 90-percent confidence level.

One occupational group—healthcare practitioners and technical—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Duluth had 10,520 jobs in healthcare practitioners and technical, accounting for 8.3 percent of local area employment, significantly higher than the 6.0-percent share nationally. The average hourly wage for this occupational group locally was \$38.39, compared to the national wage of \$38.83.

Some of the larger detailed occupations within the healthcare practitioners and technical group included registered nurses (4,380); licensed practical and licensed vocational nurses (780); and pharmacy technicians (510). Among the higher paying jobs in this group were internists, general with mean hourly wages of \$129.03 along with family and general practitioners at \$112.42. At the lower end of the wage scale were emergency medical technicians and paramedics (\$15.07) and veterinary technologists and technicians (\$15.67). (Detailed data for healthcare practitioners and technical occupations are presented in [table 1](#); for a complete listing of detailed occupations available go to www.bls.gov/oes/current/oes_20260.htm.)

Location quotients allow us to explore the occupational make-up of a metropolitan area by comparing the composition of jobs in an area relative to the national average. (See [table 1](#).) For example, a location quotient of 2.0 indicates that an occupation accounts for twice the share of employment in the area than it does nationally. In the Duluth Metropolitan Statistical Area, above-average concentrations of employment were found in many of the occupations within the healthcare practitioners and technical group. For instance, surgical technologists were employed at 1.9 times the national rate in Duluth, and registered nurses, at 1.7 times the U.S. average. On the other hand, medical records and health information technicians had a location quotient of 1.0 in Duluth, indicating that this particular occupation's local and national employment shares were similar.

These statistics are from the Occupational Employment Statistics (OES) survey, a federal-state cooperative program between BLS and State Workforce Agencies, in this case, the Minnesota Department of Employment & Economic Development and the Wisconsin Department of Workforce Development.

Notes on Occupational Employment Statistics Data

With the release of the May 2017 estimates, the OES program has replaced 21 detailed occupations found in the 2010 Standard Occupational Classification (SOC) with 10 new aggregations of those occupations. In addition, selected 4- and 5-digit North American Industry Classification System (NAICS) industries previously published by OES will no longer be published separately. Some of the 4-digit NAICS industries that are no longer being published separately will instead be published as OES-specific industry aggregations. More information about the new occupational and industry aggregations is available at www.bls.gov/oes/changes_2017.htm.

A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance. Statistical significance is concerned with the ability to make confident statements about a universe based on a sample. It is entirely possible that a large difference between two values is not significantly different statistically, while a small difference is, since both the size and heterogeneity of the sample affect the relative error of the data being tested.

Technical Note

The Occupational Employment Statistics (OES) survey is a semiannual survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES data available from BLS include cross-industry occupational employment and wage estimates for the nation; over 650 areas, including states and the District of Columbia, metropolitan statistical areas (MSAs), metropolitan divisions, nonmetropolitan areas, and territories; national industry-specific estimates at the NAICS sector, 3-, 4-, and selected 5- and 6-digit industry levels, and national estimates by ownership across all industries and for schools and hospitals. OES data are available at www.bls.gov/oes/tables.htm.

OES estimates are constructed from a sample of about 1.2 million establishments. Each year, two semiannual panels of approximately 200,000 sampled establishments are contacted, one panel in May and the other in November. Responses are obtained by mail, Internet or other electronic means, email, telephone, or personal visit. The May 2017 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2017, November 2016, May 2016, November 2015, May 2015, and November 2014. The overall national response rate for the six panels, based on the 50 states and the District of Columbia, is 72 percent based on establishments and 68 percent based on weighted sampled employment. The unweighted sample employment of 82 million across all six semiannual panels represents approximately 58 percent of total national employment. The sample in the Duluth Metropolitan Statistical Area included 1,824 establishments with a response rate of 75 percent. For more information about OES concepts and methodology, go to www.bls.gov/oes/current/oes_tec.htm.

The May 2017 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system and the 2017 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at www.bls.gov/soc and information about the 2017 NAICS is available at www.bls.gov/bls/naics.htm.

Metropolitan area definitions

The substate area data published in this release reflect the standards and definitions established by the U.S. Office of Management and Budget.

The **Duluth, Minn.-Wis. Metropolitan Statistical Area** includes Carlton and St. Louis Counties of Minnesota and Douglas County of Wisconsin.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/midwest. Answers to frequently asked questions about the OES data are available at www.bls.gov/oes/oes_ques.htm. Detailed technical information about the OES survey is available in our Survey Methods and Reliability Statement on the BLS website at www.bls.gov/oes/current/methods_statement.pdf.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Duluth Metropolitan Statistical Area, May 2017

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Healthcare practitioners and technical occupations	10,520	1.4	\$38.39	\$79,850
Dentists, general	70	0.8	89.41	185,980
Dietitians and nutritionists	60	1.1	27.55	57,310
Optometrists	50	1.6	55.43	115,280
Pharmacists	380	1.4	65.93	137,140
Family and general practitioners	170	1.5	112.42	233,830
Internists, general	(5)	(5)	129.03	268,380
Pediatricians, general	(5)	(5)	112.20	233,380
Surgeons	70	2.1	(7)	(7)
Physicians and surgeons, all other	280	0.9	127.40	265,000
Physician assistants	110	1.1	57.92	120,460
Occupational therapists	130	1.1	31.75	66,050
Physical therapists	280	1.4	37.41	77,810
Respiratory therapists	150	1.3	31.26	65,020
Speech-language pathologists	80	0.7	34.65	72,070
Exercise physiologists	30	6.3	29.67	61,710
Veterinarians	100	1.6	31.33	65,170
Registered nurses	4,380	1.7	30.39	63,200
Nurse anesthetists	70	1.8	94.58	196,730
Nurse practitioners	210	1.4	55.97	116,410
Clinical laboratory technologists and technicians	300	1.1	25.71	53,480
Dental hygienists	290	1.5	28.73	59,760
Cardiovascular technologists and technicians	70	1.4	33.21	69,070
Diagnostic medical sonographers	50	0.8	37.10	77,160
Radiologic technologists	210	1.2	31.02	64,520
Emergency medical technicians and paramedics	320	1.4	15.07	31,340
Pharmacy technicians	510	1.4	16.50	34,310
Surgical technologists	180	1.9	25.93	53,940
Veterinary technologists and technicians	70	0.8	15.67	32,600
Ophthalmic medical technicians	60	1.5	22.93	47,690
Licensed practical and licensed vocational nurses	780	1.3	20.54	42,720
Medical records and health information technicians	180	1.0	21.54	44,810
Opticians, dispensing	110	1.6	16.36	34,030
Health technologists and technicians, all other	70	0.7	25.61	53,280
Occupational health and safety specialists	120	1.7	37.15	77,280
Athletic trainers	40	1.6	(6)	46,680

Footnotes:

(1) For a complete listing of all detailed occupations in Duluth, MN-WI, see www.bls.gov/oes/current/oes_20260.htm

(2) Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.

(3) The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.

(4) Annual wages have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours; for those occupations where there is not an hourly mean wage published, the annual wage has been directly calculated from the reported survey data.

(5) Estimate not released.

(6) Wages for some occupations that do not generally work year-round, full time, are reported either as hourly wages or annual salaries depending on how they are typically paid.

(7) This wage is equal to or greater than \$80.00 per hour or \$166,400 per year.